HONDA Service Bulletin 02-007

Applies To: See VEHICLES AFFECTED February 19, 2002

EVAP System Function Testing and Diagnostics With the PGM Tester

BACKGROUND

The PGM Tester software has been improved to include EVAP system function testing and diagnostics.This improvement aids in troubleshooting if DTC P1456 [EVAP control system leakage (fuel tank system)] or DTC P1457 [EVAP control system leakage (EVAP canister system)] is set. Software version SN211 and later versions have this new function test. When you select the test, the PGM Tester commands the ECM/PCM to run the EVAP system function test. This test is the same as the one done by the vehicle's ECM/PCM during normal operation, and it can detect the same system integrity problem(s).

If the function test shows no problem with the vehicle's EVAP system, then the system's integrity and functioning are OK *at the time the test is run*. But if there is a problem with the system, the PGM Tester shows you which components in the system you need to check.

VEHICLES AFFECTED

1998–02 Accord - ALL

1996–98 Civic - ALL with enhanced EVAP system function

1999–02 Civic - ALL

1998 CR-V - ALL with enhanced EVAP system function

1999–01 CR-V - ALL

1999–01 Odyssey - ALL

PROCEDURE

Use the PGM Tester, loaded with SN211 or later software, to troubleshoot DTC P1456 and P1457.

This service bulletin guides you through this process in three parts:

- Retrieving Test ID Information With the PGM Tester
- Running the EVAP System Function Test
- Handling a Comeback

Retrieving Test ID Information With the PGM Tester

Before doing any troubleshooting for DTC P1456 or P1457, use the PGM Tester and this procedure to retrieve and check the TEST ID (TID) information from the vehicle's ECM/PCM. Make sure you write down or print out the failed TID(s) and their displayed minimum, maximum, and current values. This data is lost when you run the EVAP system function test, and you will need it if you call Tech Line for help.

1. Connect the PGM Tester to the 16P data link connector (DLC).
2. Turn the ignition switch to ON (II).
3. From the PROGRAM MENU screen, select GENERIC OBD II.
4. From the FUNCTION MENU screen, select F1: OBD II FUNCTIONS.
5. From the OBD II TEST MENU screen, select F1: OBD II FUNCTIONS.
6. From the OBD II FUNCTIONS screen, select F9: ADVANCED OBD II.
7. From the ADVANCED OBD II screen, select F1: ON-BOARD TESTS.
8. From the ON-BOARD TESTS screen, select F1: NON-CONTINUOUS. The Test ID screen comes up showing you a history of the most recent system self-tests run (including the EVAP tests), and whether the tests passed or failed.

```
TI D$01  CI D$00...PASS
TI D$06  CI D$01...PASS
TI D$10  CI D$05...PASS
TI D$11  CI D$05...PASS
TI D$18  CI D$06...PASS
TI D$19  CI D$06...PASS
TI D$21  CI D$02...PASS
TI D$2D CI D$02...FAIL
TI D$3A  CI D$02...PASS
TI D$3E  CI D$02...PASS
TI D$5D  CI D$00...PASS
.....
```

NOTE: Your screen may show a different list than the one shown here. If any of the following TIDs failed, the vehicle's EVAP system failed the on-board diagnostic self-test.

Relevant to DTC P1456: TID$21, TID$26, TID$27, TID$3C, TID$38

Relevant to DTC P1457: TID$2D, TID$2E, TID$2F, TID$29, TID$3E

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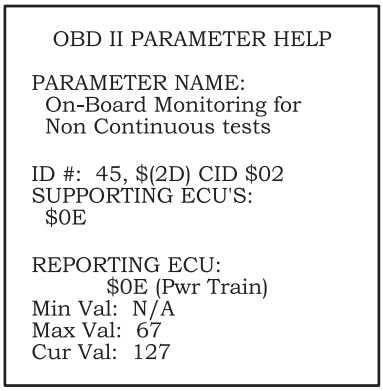
Skill Level R REPAIR

CUSTOMER INFORMATION: The information in this bulletin is intended for use only by skilled technicians who have the proper tools, equipment, and training to correctly and safely maintain your vehicle. These procedures should not be attempted by "do-it-yourselfers," and you should not assume this bulletin applies to your vehicle, or that your vehicle has the condition described. To determine whether this information applies, contact an authorized Honda automobile dealer.

9. Review the information on the Test ID screen. If you see a TID that failed, scroll down to that TID, hold down the * key, then press the HELP key to get the OBD II PARAMETER HELP screen. This screen shows you the TID, the minimum and maximum values that the system expects, and the current value (the value from the last time the ECM/PCM did this specific test). Write down or print out these values for each TID that failed. To return to the Test ID screen, press the EXIT key.



10. In addition to the failed TIDs, write down or print out the minimum and current values shown for TID$2E, TID$3E, TID$2F, and TID$29. These values can be helpful even if these TIDs passed.

Running the EVAP System Function Test

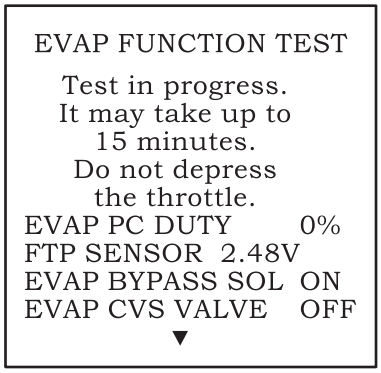
Software version SN211 and later can do a complete function test of the vehicle's EVAP system. The PGM Tester works the EVAP system solenoids and checks for system integrity. If a problem is found, the PGM Tester shows that the function test has failed, and it lists several components that may be at fault. If you believe the failure is intermittent, you may want to run this test several times. If you do, waiting an hour or two between test sessions or moving the vehicle outdoors to cool down overnight between tests could help with diagnosis.

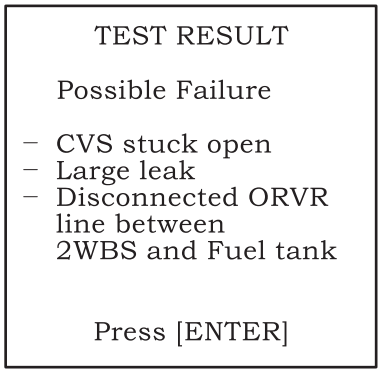
Make sure the engine is warmed up to normal operating temperature before you do this procedure.

1. Connect the PGM Tester to the 16P data link connector (DLC).
2. Turn the ignition switch to ON (II).
3. From the PROGRAM MENU screen, select HONDA SYSTEMS, SN211.
4. Navigate to the SYSTEM SELECT screen, then select 1: PGM-FI.
5. From the PGM-FI screen, select INSPECTION.
6. From the INSPECTION screen, select 2: EVAP TEST.

7. From the EVAP TEST screen, select 3: FUNCTION TEST. It may take as long as **15 minutes** for the function test to complete. (A small spinning triangle at the bottom of the PGM Tester screen tells you the test is still running.) When the test is done, the PGM Tester shows if the EVAP system is working OK or if a problem was found. If a problem was found, the PGM Tester shows which components should be inspected.

   NOTE: If a problem was found, make sure you write down or print out what components should be inspected. This information could be useful if you need further help from Tech Line.m,





8. If the function test fails, take the appropriate action:
   - **1998–02 Accord:** Do the procedure in S/B 99-075, *Troubleshooting DTC P1456 and P1457*, found in Fuel and Emissions. If the vehicle failed TID$3E, double the test run time to 40 seconds.
   - **1998–00 Civic:** See the article “S/N Revision: Troubleshooting DTC P1456 and P1457” in the December ’99 issue of *ServiceNews*.
   - **2001–02 Civic:** Do the procedure in S/B 99-075, *Troubleshooting DTC P1456 and P1457*, found in Fuel and Emissions. Keep in mind the hose routing on the two-way valve is different from what you see in the illustrations, although the text is OK. If the vehicle failed TID$3E, double your test run time to 40 seconds.
   - **1998–01 CR-V:** See the article “S/N Revision: Troubleshooting DTC P1456 and P1457” in the December ’99 issue of *ServiceNews*.
   - **1999–00 Odyssey:** See the article “S/N Revision: Troubleshooting DTC P1456 and P1457” in the December ’99 issue of *ServiceNews*.
   - **2001 Odyssey:** Do the procedure in S/B 99-075, *Troubleshooting DTC P1456 and P1457*, found in Fuel and Emissions.
   - **All affected models:** See the article “Check Your Repairs With the PGM Tester” in the August ’01 issue of *ServiceNews*.
9. If the function test *passes*, refer to the TID information you retrieved earlier from the vehicle’s ECM/PCM.
   - If all of the listed TIDs passed, and this was the first time this problem happened, the failure is intermittent and *cannot* be reproduced. Clear the DTC with the PGM Tester, and return the vehicle to your customer.
   - TID$38 has been added to the on-board diagnostic self-tests starting with these models: ’01 Accord L4, ’02 Accord V6, ’01 Civic, ’02 CR-V, and ’02 Insight. If TID$38 is the *only* listed TID that failed on these models, the EVAP system had sensed a large leak on the fuel tank side. Since the *only* items that could cause this failure are a disconnected hose or a large diameter hole in the system—and these are *not* capable of self-healing—chances are the fuel fill cap was either missing or loose when the on-board diagnostic self-test was run. Make sure the proper fuel fill cap is installed, the fuel fill cap O-ring is in place, and the filler neck is *not* damaged. If all of these items are OK, return the vehicle to your customer, and advise him or her about the importance of properly tightening the fuel fill cap.
   - If any other listed TIDs failed, make sure you write down or print out that information for the vehicle’s service history file. Clear the DTC with the PGM Tester, and return the vehicle to your customer.

Handling a Comeback

If the vehicle has come back to your dealership more than twice for the same DTC (either P1456 or P1457), and the PGM Tester EVAP system function test does *not* show a problem in the EVAP system, call Tech Line. But call *only* after you have done the EVAP system function test and written down or printed out the TID information as instructed in this service bulletin.

When you call Tech Line, make sure you have this information on hand:

- Current DTC that is set
- TID information retrieved from the vehicle

  NOTE: Include the minimum, maximum, and current values you wrote down or printed out for any failed TIDs. Also include the minimum and current values for TID$2E, TID$3E, TID$2F, and TID$29.
- Results from the PGM Tester EVAP system function test
- If the function test passed, include how many times you ran the test and under what conditions.
- If you ran the function test several times, but the test did *not* fail each time (for example, it failed once out of five tries), include what components the PGM Tester indicated should be checked.
- Results from any additional testing you may have done (related service bulletins, *ServiceNews* articles, etc.)
- Previous repair history for the vehicle (what was repaired or replaced during earlier servicing)
- The date the last repair attempt was done (the R.O. date of earlier repairs for the same DTC)
- Aftermarket accessories installed and dates of installation (important if the installation could be related to the EVAP system problem)
- Collision history (important if damage from the collision could be related to the EVAP system problem)